

In re Appln. of Joel Douglas Bigley
Application No. 10/792,352

CLAIM AMENDMENTS

1. (Currently Amended) A secure optical data storage disc comprising:
a first substrate;
a second substrate; and
a non-readable zone comprising a security tag, wherein the non-readable zone extends into a mirror band region, and a capacitive component of the security tag is located, at least in part within the mirror band region.
2. (Original) The secure disc of claim 1 wherein the security tag comprises a metal coil.
3. (Original) The secure disc of claim 2 wherein the metal coil is laid out as a set of rings.
4. (Original) The secure disc of claim 3 wherein the set of rings are concentric.
5. (Original) The secure disc of claim 2 wherein the metal coil is laid out as a set of non-concentric coils.
6. (Original) The secure disc of claim 2 wherein the metal coil comprises a set of non-circular coils.
7. (Original) The secure disc of claim 6 wherein the set of non-circular coils are non-concentric.

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8. (Original) The secure disc of claim 2 wherein the security tag comprises a thin-film insulator sandwiched between metal coil pairs.

9. (Original) The secure disc of claim 1 wherein the secure disc comprises an information layer sandwiched between the first and second substrate, and wherein the security tag is also sandwiched between the first and second substrate.

10. (Original) The secure disc of claim 1 wherein the non-readable zone is substantially located within a clamping zone.

11. (Canceled) The secure disc of claim 1 wherein the non-readable zone extends into a mirror band region.

12. (Canceled) The secure disc of claim 11 wherein a capacitive component of the security tag is located, at least in part within the mirror band region.

13. (Original) The secure disc of claim 1 wherein at least one of the first and second substrates has a non-uniform thickness to facilitate accommodating a thickness of the security tag that exceeds a bonding layer between the first and second substrates.

14. (Original) The secure disc of claim 1 wherein data carried on the disc comprises videogame console software.

15. (Original) The secure disc of claim 1 wherein data carried on the disc comprises a movie.

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16. (Original) The secure disc of claim 1 wherein the security tag incorporates radio frequency identification technology.

17. (Original) The secure disc of claim 1 wherein the disc conforms to a DVD standard specification.

18. (Original) The secure disc of claim 1 wherein the secure disc comprises multiple data layers readable from a single side.

19. (Original) The secure disc of claim 1 wherein the secure disc comprises dual readable sides.

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20. (Currently Amended) A method for manufacturing a secure optical data storage disc comprising a first substrate, a second substrate, and a non-readable zone that is not occupied by data tracks, the method comprising:

forming the first substrate and the second substrate;
securing a security tag to one of the first or second substrates within the non-readable zone; and

bonding the first substrate and second substrate together such that the security tag is positioned between outer surfaces of the first and second substrates, wherein the forming and securing steps are performed during an injection molding stage wherein the security tag is placed within an injection mold for forming one of the first and second substrates prior to injecting a molten substrate material, and the forming step comprises forming the first substrate within a first mold and forming the second substrate within a second mold that differs from the first mold.

21. (Canceled) The method of claim 20 wherein the forming and securing steps are performed during an injection molding stage wherein the security tag is placed within an injection mold for forming one of the first and second substrates prior to injecting a molten substrate material.

22. (Canceled) The method of claim 20 further comprising the steps of:
applying a reflective layer to the first substrate, and, before the bonding step, placing the security tag upon the first substrate during the securing step.

23. (Currently Amended) The method of claim 2220 further comprising applying a semi-transmissive layer on the second substrate.

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24. (Canceled) The method of claim 22 further comprising transferring the first substrate to a carousel interposed between a sputtering station for performing the applying step and a consolidating station for performing the bonding step, wherein the placing the security tag upon the first substrate step is performed while the first substrate rests on the carousel.

25. (Canceled) The method of claim 21 wherein the forming step comprises forming the first substrate within a first mold and forming the second substrate within a second mold that differs from the first substrate.

26. (Original) The method of claim 20 wherein the secure disc comprises multiple data layers readable from a single side.

27. (Original) The method of claim 20 wherein the secure disc comprises dual readable sides.

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28. (New) A method for manufacturing a secure optical data storage disc comprising a first substrate, a second substrate, and a non-readable zone that is not occupied by data tracks, the method comprising:

forming the first substrate and the second substrate;
applying a reflective layer to the first substrate;
applying a semi-transmissive layer to the second substrate;
securing a security tag to the first substrate within the non-readable zone; and
bonding, after the securing step, the first substrate and second substrate together such that the security tag is positioned between the first and second substrates.

29. (New) The method of claim 28 wherein the secure disc comprises dual readable sides.

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30. (New) A method for manufacturing a secure optical data storage disc comprising a first substrate, a second substrate, and a non-readable zone that is not occupied by data tracks, the method comprising:

forming the first substrate and the second substrate;

applying a reflective layer to the first substrate;

securing a security tag to the first substrate within the non-readable zone;

bonding, after the securing step, the first substrate and second substrate together such that the security tag is positioned between the first and second substrates; and

transferring the first substrate to a carousel interposed between a sputtering station for performing the applying step and a consolidating station for performing the bonding step, wherein the placing the security tag upon the first substrate step is performed while the first substrate rests on the carousel.

31. (New) The method of claim 30 wherein the secure disc comprises multiple data layers readable from a single side.

32. (New) The method of claim 30 wherein the secure disc comprises dual readable sides.